

# 3 | Background

This chapter provides bicycle trip-making trends, bicycle/motor vehicle collision rates, and MTC bicycle-related programs and policies as a backdrop to the remainder of the *Regional Bicycle Plan for the San Francisco Bay Area*. Please refer to the bicycle plans of MTC's partner agencies – local governments, congestion management agencies, transit agencies and park districts – for information on bicycle facilities in each Bay Area jurisdiction (see Appendix F).

## Physical setting

The nine-county Bay Area encompasses 7,200 square miles of varied topography, climate and development intensity. The region is divided into a number of

subregions by the Bay and the hills that parallel the coastline. While these barriers make bicycling between subregions challenging, they frame flatlands on which bicycling can be relatively easy for cyclists of all abilities. These level areas include the Santa Clara, Diablo and Livermore valleys, the East Bay flatlands, the western edges of the Central Valley, and the eastern Peninsula. The majority of Napa and Sonoma county development is also located in broad valleys. Many of the region's homes and businesses are located in these relatively flat areas, thereby providing multiple utilitarian and recreational bicycling opportunities.

In addition to the Bay Area's generally hospitable topography and land-use

patterns, is a temperate climate that is conducive to cycling. Although temperatures vary with distance from the moderating influence of the Pacific Ocean and San Francisco and San Pablo bays, the region is relatively warm in winter and rarely excessively hot in summer. Annual rainfall is limited in most areas, on average less than 21 inches, although the portions of the North Bay can see double this amount. This mild climate is conducive to cycling during most months of the year.

Development in many parts of the region also supports bicycling. Before World War II, San Francisco and Oakland were the Bay Area's only big cities, but smaller towns were scattered around the region: the railroad suburbs on the Peninsula; the

industrial towns along the Bay and San Joaquin River in Contra Costa County; the agricultural centers of San José and Santa Rosa; and the university towns of Berkeley and Palo Alto.



The relatively compact and frequent grid development patterns in these areas create a hospitable bicycling environment. Destinations are often clustered in neighborhood commercial districts and downtowns, and motor vehicle traffic is dispersed among many parallel roadways, rather than channeled onto a single expressway as is typical in postwar development.

Traveling between these older communities by the region's more athletic bicyclists is possible along many corridors. However,

automobile and truck traffic, frequently inadequate bicycle facilities, and many areas of postwar sprawling development conspire to dissuade many potential cyclists from venturing beyond their neighborhoods.

Together the Bay Area's extensive flatlands, moderate climate and compact development create a hospitable cycling environment.

Linking multiuse pathways, bicycle lanes, and other bicycle facilities with the region's extensive bus, rail and ferry network can allow cyclists to use their bicycles at either or both ends of their trip, while using public transit to travel longer distances and over steep hills and the Bay. Coordinating bicycles and public transit also allows transit systems to increase ridership without constructing additional automobile parking (see Chapter 4).

### Trip-making trends

According to MTC's most recent travel survey – the Bay Area Travel Survey (BATS) – Bay Area residents took over 300,000 daily

trips by bicycle each weekday and over 2 million trips each week in 2000 (see Tables 3.1-3.3). These numbers include trips to work, shopping, recreation and school and other trips (such as an errand on the way home from work) that neither originate nor terminate at home. The trip purposes with the largest share of weekday bicycle trips (versus other modes) in the region are work commute trips (1.8 percent), followed closely by school trips (1.7 percent). More Bay Area bicycle trips are to work each day than for any other purpose (81,000), but there are almost as many bike-to-shop trips across the region (75,000). The counties with the highest share of bicycle trips (compared to other modes used in that county) are Alameda and San Francisco, where 2.1 percent of all weekday trips are by bike. More weekday bicycle trips occur in Alameda County than anywhere else in the region (over 90,000 per weekday).

Beyond these weekday trips, over 500,000 additional bicycle trips take place each weekend across the Bay Area (see Table 3.2). The trip purposes with the highest bicycle share are work trips and social/recreational trips (both 1.6 percent of trips by all modes)

but, not surprisingly, there are far more weekend social/recreational trips (222,000) than any other trip purpose. San Francisco is the county with the highest share of weekend bicycle trips (2.3 percent of all weekend trips in San Francisco are by bike) and Alameda County has the highest number of weekend trips in the region (151,000).

Regionwide, there are over 2 million weekly bicycle trips, which account for 1.4 percent of all trips taken by all modes in all nine Bay Area counties.

Table 3.3 shows the number of weekly bicycle trips (i.e., in a seven-day period). Regionwide, there are over 2 million weekly bicycle trips, which account for 1.4 percent of all trips taken by all modes in all nine Bay Area counties. The highest share of trips over the seven-day period are work trips (1.7 percent of all work trips are by bike), but more people bicycle to go shopping (550,000 weekly trips) than for any other trip purpose.

More people shop by bicycle than for any other trip purpose: 550,000 weekly trips.

The U.S. Census Bureau, which tracks bicycle commuters rather than bicycle trips, reports 36,000 Bay Area bicycle commuters in 2000, 1.1 percent of all commuters (see Table 3.4). This ranges from 0.5 percent in Contra Costa and Solano counties to 2 percent of commuters who live in San Francisco, numbers that are comparable to the BATS work trip data reported in Table 3.1.



**Table 3.1: Average Bay Area weekday bicycle trips (Monday through Friday; 2000)**

	Home-based trips				Non-home-based	Total	% of all trips
	Work	Shopping	Social/ Recreation	School			
Alameda	22,000	16,000	26,000	10,000	19,000	93,000	2.1%
Contra Costa	1,800*	9,000	3,000*	3,000*	1,000*	19,000	0.7%
Marin	3,600*	5,000*	3,000*	2,000*	1,000*	14,000	1.7%
Napa	1,000*	2,000*	1,000*	1,000*	400*	5,000*	1.3%
San Francisco	20,000	14,000	8,000	1,000*	8,000	51,000	2.1%
San Mateo	13,000	7,000	3,000*	11,000	6,000	39,000	1.8%
Santa Clara	15,000	16,000	9,000	11,000	11,000	62,000	1.2%
Solano	3,000*	4,000*	1,000*	2,000*	400*	10,000	1.0%
Sonoma	3,000*	4,000*	3,000*	2,000*	1,000*	11,000	0.8%
<b>Regionwide</b>	<b>81,000</b>	<b>75,000</b>	<b>56,000</b>	<b>43,000</b>	<b>49,000</b>	<b>303,000</b>	<b>1.5%</b>
% of all trips**	1.8%	1.4%	1.5%	1.7%	1.0%	1.5%	

\* Insufficient sample size; reported for information purposes only.

\*\* These values show percent of this trip purpose regionwide that is by bicycle.

Percentages do not add up to 100% due to rounding

Source: Metropolitan Transportation Commission, Bay Area Travel Survey

**Table 3.2: Average Bay Area weekend bicycle trips (Saturday and Sunday; 2000)**

	Home-based trips				Non-home-based	Total	% of all trips
	Work	Shopping	Social/ Recreation	School			
Alameda	13,000	37,000	80,000	—	21,000	151,000	1.9%
Contra Costa	—	19,000	7,000	3,000*	1,000*	30,000	0.6%
Marin	1,600*	13,000	1,000*	—	3,000*	19,000	1.1%
Napa	1,000*	1,000*	—	—	2,000*	4,000	0.6%
San Francisco	12,000	34,000	40,000	2,000*	16,000	105,000	2.3%
San Mateo	9,000	13,000	7,000	—	6,000	36,000	0.9%
Santa Clara	5,000	34,000	65,000	1,000*	9,000	114,000	1.1%
Solano	3,000*	4,000*	10,000	—	1,000*	18,000	1.1%
Sonoma	—	18,000	12,000	3,000*	7,000	40,000	1.4%
<b>Regionwide</b>	<b>46,000</b>	<b>173,000</b>	<b>222,000</b>	<b>9,000</b>	<b>66,000</b>	<b>517,000</b>	<b>1.3%</b>
% of all trips**	1.6%	1.4%	1.6%	1.0%	0.7%	1.3%	

\* Insufficient sample size; reported for information purposes only.

\*\* These values show percent of this trip purpose regionwide that is by bicycle.

Percentages do not add up to 100% due to rounding

Source: Metropolitan Transportation Commission, Bay Area Travel Survey

**Table 3.3: Average Bay Area total weekly bicycle trips (weekdays+weekends; 2000)**

	Home-based trips				Non-home-based	Total	% of all trips
	Work	Shopping	Social/ Recreation	School			
Alameda	122,000	115,000	209,000	51,000	117,000	615,000	2.0%
Contra Costa	9,000*	64,000	25,000*	19,000*	8,000*	125,000	0.6%
Marin	19,000*	36,000*	14,000*	8,000 *	9,000*	86,000	1.5%
Napa	6,000*	10,000*	4,000*	4,000*	4,000*	28,000*	1.1%
San Francisco	112,000	106,000	78,000	9,000*	57,000	361,000	2.1%
San Mateo	72,000	46,000	23,000*	53,000	36,000	230,000	1.5%
Santa Clara	82,000	112,000	108,000	58,000	63,000	423,000	1.2%
Solano	17,000*	25,000*	15,000*	10,000*	3,000 *	69,000	1.0%
Sonoma	13,000*	36,000*	25,000*	11,000*	11,000*	96,000	1.0%
<b>Regionwide</b>	<b>452,000</b>	<b>550,000</b>	<b>501,000</b>	<b>223,000</b>	<b>307,000</b>	<b>2,033,000</b>	<b>1.4%</b>
% of all trips**	1.7%	1.4%	1.6%	1.6%	0.9%	1.4%	

\* Insufficient sample size; reported for information purposes only.

\*\* These values show percent of this trip purpose regionwide that is by bicycle.

Percentages do not add up to 100% due to rounding

Source: Metropolitan Transportation Commission, Bay Area Travel Survey

Table 3.4: Bay Area daily journey-to-work commuters (2000)

County	Drive alone <sup>1</sup>	Carpool	Transit <sup>2</sup>	Bicycle <sup>3</sup>	Walk	Other	Work at home	Total
Alameda	453,000	94,000	72,000	8,000	22,000	6,000	24,000	679,000
	66.7%	13.8%	10.6%	1.2%	3.2%	0.9%	3.5%	100.0%
Contra Costa	311,000	60,000	40,000	2,000	7,000	4,000	19,000	442,000
	70.4%	13.5%	9.0%	0.5%	1.5%	0.9%	4.3%	100.0%
Marin	83,000	14,000	13,000	1,000	4,000	1,000	11,000	127,000
	65.8%	10.7%	10.1%	1.0%	3.0%	0.6%	8.8%	100.0%
Napa	42,000	8,500	800	500	2,000	500	3,000	57,000
	72.9%	14.8%	1.4%	0.8%	4.1%	0.8%	5.1%	100.0%
San Francisco	173,000	45,000	130,000	8,000	39,000	3,000	19,000	419,000
	41.4%	10.8%	31.1%	2.0%	9.4%	0.7%	4.6%	100.0%
San Mateo	257,000	45,000	26,000	3,000	8,000	2,000	13,000	354,000
	72.6%	12.8%	7.4%	0.8%	2.1%	0.7%	3.6%	100.0%
Santa Clara	643,000	101,000	29,000	10,000	15,000	5,000	26,000	829,000
	77.6%	12.2%	3.5%	1.2%	1.8%	0.6%	3.1%	100.0%
Solano	128,000	31,000	5,000	1,000	3,000	2,000	5,000	175,000
	73.5%	17.7%	2.7%	0.5%	1.6%	0.9%	3.1%	100.0%
Sonoma	169,000	28,000	6,000	2,000	7,000	2,000	12,000	225,000
	75.0%	12.6%	2.4%	0.8%	3.1%	0.7%	5.4%	100.0%
Region	2,260,000	427,000	321,000	36,000	106,000	24,000	133,000	3,306,000
	68.4%	12.9%	9.7%	1.1%	3.2%	0.7%	4.0%	100.0%

<sup>1</sup> Includes motorcyclists

<sup>2</sup> Includes taxicab passengers

<sup>3</sup> Unlike BATS data, indicates bicycle commuters, rather than bicycle trips.

Percentages do not add up to 100% due to rounding

Source: U.S. Census 2000, Journey-to-Work

### Motor vehicle/bicycle collision analysis

From 2000 to 2006, the number of reported collisions between motor vehicles and bicycles in the Bay Area ranged between 2,300 and 2,800, with a high in 2000 and a low in 2003 (Statewide Integrated Traffic Records System/SWITRS; see Table 3.5). While an average of 1.4 percent of regional trips were made by bicycle in 2000 (see Table 3.3), over 2.5 times that proportion of traffic fatalities were bicyclists (Table 3.6).

**The likelihood that a given person bicycling will be struck by a motorist varies inversely with the amount of bicycling.**

Just as bicycle/motor vehicle collisions peaked in 2000 and were at their lowest level in 2003, regional traffic levels (as measured by vehicle hours of delay) and transit ridership experienced a similar pattern. In all cases, these trends are commonly attributed to the 2002 downturn in the high-tech economy. Although the number of collisions between bikes and

motor vehicles — which decreased between 2000 and 2003 — did not increase with the region's journey to economic recovery, the rate of decrease flattened out after 2003.

**While an average of 1.4 percent of regional trips were by bicycle in 2000, almost 2.5 times that proportion of traffic fatalities were bicyclists.**

While analyzing absolute numbers of reported collisions in each county is useful for comparing year-to-year levels, it is not as valuable for comparing the relative safety of cycling between counties because it considers neither the number of motor vehicles nor the number of cyclists on the road. Table 3.7 shows the number of collisions in each county relative to population, a common surrogate for motor vehicles. This analysis shows that, on average, between 2000 and 2006, there were 35 collisions per 100,000 population throughout the Bay Area, ranging from 23 in Solano County to 54 in Marin.

While measures of collisions per population are more informative than collisions alone,

to obtain an accurate sense of the relative risk of motor vehicle/bicycle collisions, one must consider the number of cyclists on the road as well. In fact, the likelihood that a given person bicycling will be struck by a motorist varies inversely with the amount of bicycling.<sup>2</sup> This pattern is consistent across communities of varying size, from specific intersections to cities and countries, and across time periods.

Information from MTC's 2000 Bay Area Travel Survey, which considers all bicycle trips, provides perhaps the best measure of cyclists' actual risk of collision. The data in Table 3.7 shows that there was a regional average of 2.3 reported motor vehicle/bicycle collisions per 100,000 bicycle trips. Between 2000 and 2006, the lowest rates were in Alameda, San Francisco and San Mateo counties, all counties with above-average rates of total bicycle trips, supporting the notion that bicyclists may be safer when there are more of them on the

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<sup>2</sup> Jacobsen, P.L., "Safety in numbers: more walkers and bicyclists, safer walking and bicycling," *Injury Prevention*, 2003.



road. Conversely, the highest collision rates occur in Contra Costa, Napa and Sonoma counties, areas with lower densities, where cars travel at higher speeds, which may increase the likelihood of serious injury.

**Addressing roadway configurations that increase the likelihood of dooring, pavement condition and multiuse trail design may reap greater safety benefits to cyclists than improvements aimed at the smaller proportion of bicycle/motor vehicle collisions that are typically reported.**

In an effort to reduce the number and severity of bicycle/motor vehicle collisions, MTC provides examples of safety countermeasures on its Web site ([www.mtc.ca.gov/planning/bicyclespedestrians/safety/uses.htm](http://www.mtc.ca.gov/planning/bicyclespedestrians/safety/uses.htm)). See “Emerging bicycle innovations” discussion in Chapter 4 for further information.

#### UNDER-REPORTING

Although there is no reason to suspect inaccuracies in terms of the orders of magnitude of collision rates from year to year, by comparing SWITRS data to emergency room admissions and cyclist surveys, a number of studies have demonstrated that collisions involving bicyclists are severely under-reported, sometimes with as few as one in 10 incidents reported.\* A joint study by the San Francisco Bicycle Coalition and the San Francisco Department of Public Health revealed that only 5 percent of dooring incidents were reported to the police. (Dooring refers to a motorist opening his/her car door into the path of a bicyclist.) Other types of collisions that tend to go unreported are those that do not involve a motor vehicle – such as those due to uneven pavement or between a bicyclist and a pedestrian – and those that do not result in serious injury.

\* District of Columbia Department of Transportation, *Bicycle Collisions in the District of Columbia: 2000-2002, 2004*.

#### Conclusions

It is instructive to use countywide and regionwide collision statistics to observe year-to-year collision rates in a given geographic area, and to identify geographic areas that might benefit from programs aimed at improving these numbers, such as police stings and bicycle and driver education (see Goal 3 in Chapter 2). Perhaps more important than how many collisions are reported in a given county, however, is at what locations and for what reasons collisions occur. The SWITRS data on which the analysis in this section was based tracks the specific location and reported causes of each collision. Cities and counties can and do benefit from regularly reviewing this information as a tool for identifying problem locations and, where possible, traffic engineering solutions.

The issue of under-reporting of collisions involving bicyclists is a barrier against fully understanding the extent, location and cause of these incidents (see adjacent box). Besides severely understating the extent of bicyclist injuries, under-reporting of collisions involving cyclists may also skew public agencies’ prioritization of bicycle

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safety improvements. It is conceivable, for instance, that: addressing roadway configurations that increase the likelihood of dooring; pavement condition; and multiuse trail design may reap greater safety benefits to cyclists than improvements aimed at the smaller proportion of bicycle/motor vehicle collisions that are typically reported.

**Table 3.5: Bay Area bicycle/motor vehicle collisions (injuries & fatalities)**

County	2000	2001	2002	2003	2004	2005	2006	Annual Average
Alameda	607	539	563	514	508	512	532	539
Contra Costa	312	245	207	225	230	246	218	240
Marin	160	143	159	120	115	123	122	135
Napa	62	49	55	50	71	68	56	59
San Francisco	366	360	309	316	323	351	347	339
San Mateo	274	287	229	217	208	199	189	229
Santa Clara	714	698	588	592	657	660	627	648
Solano	122	113	87	91	90	89	72	95
Sonoma	210	152	143	143	175	145	158	161
<b>Total</b>	<b>2,827</b>	<b>2,586</b>	<b>2,340</b>	<b>2,268</b>	<b>2,377</b>	<b>2,393</b>	<b>2,321</b>	<b>2,445</b>

**Table 3.6: Bay Area bicycle/motor vehicle injuries and fatalities**

Year	Bicyclist Killed	Bicyclists Injured	Total	Total people killed in collisions	% killed who are bicyclists	Average % trips by bicycle*
2000	17	2,810	2,827	444	3.8%	1.4%
2001	20	2,566	2,586	449	4.5%	N/A
2002	19	2,321	2,340	451	4.2%	N/A
2003	14	2,254	2,268	468	3.0%	N/A
2004	20	2,357	2,377	426	4.7%	N/A
2005	17	2,376	2,393	438	3.9%	N/A
2006	23	2,298	2,321	458	5.0%	N/A
<b>Total</b>	<b>130</b>	<b>16,982</b>	<b>17,112</b>	<b>3134</b>	<b>4.1%</b>	<b>N/A</b>

\* 2000 Bay Area Travel Survey data (from Table 3.3)

Source: Statewide Integrated Traffic Reporting System

**Table 3.7: Bay Area bicycle/motor vehicle (mv) collision analysis (2000 - 2006)**

County	Average annual bike/mv collisions <sup>1</sup>	Average % region's bike/mv collisions	Average % region's population <sup>2</sup> (2000-2006)	Average annual bike/mv collisions (per 100,000 pop)	Average annual bike/mv collisions per bicycle trip <sup>3</sup> (per 100,000 pop)
Alameda	539	22%	21%	37	1.7
Contra Costa	240	10%	14%	24	3.7
Marin	135	6%	4%	54	3.0
Napa	59	2%	2%	46	4.1
San Francisco	339	14%	11%	43	1.8
San Mateo	229	9%	10%	32	1.9
Santa Clara	648	27%	25%	38	2.9
Solano	95	4%	6%	23	2.6
Sonoma	161	7%	7%	34	3.2
<b>Regional Total</b>	<b>2,445</b>	<b>100%</b>	<b>100%</b>	<b>35</b>	<b>2.3</b>

Sources:

1. California Highway Patrol (Statewide Integrated Traffic Records System for collision figures)
2. Association of Bay Area Governments (Projections 2007 for population)
3. Metropolitan Transportation Commission (2000 Bay Area Travel Survey for bicycle trip figures; see Table 3.3)

### MTC's bicycle-related programs and policies

MTC facilitates bicycle transportation in three distinct ways. The agency coordinates regionwide bicycle planning by adopting and implementing policies, staffing committees and producing documents, such as this plan. MTC also provides services and programs aimed at making bicycling safer and more accessible throughout the region. Thirdly, the agency's role as the region's transportation funding agency includes the development and distribution of numerous bicycle funding sources.

#### Planning/Policy

MTC develops and updates this *Regional Bicycle Plan*, which guides regionwide bicycle facility investment. In 2000, MTC established the Regional Bicycle Working Group to advise on development of the original *Regional Bicycle Plan*. In addition to participating in the development of this plan update, the committee meets bimonthly to discuss MTC policies that affect the bicycling community and to share information about bicycle-related issues

throughout the Bay Area. The Working Group also serves as a forum to discuss new technologies, such as electronic lockers (see Chapter 4) and online bicycle route mapping programs (see following page). The committee is comprised of local and countywide bicycle planners, other transportation planners, and bicycle advocates.

At least three important resolutions adopted by MTC facilitate bicycling in the region.

- **Resolution 875:** First adopted in 1980 and most recently amended in 2005, this resolution guides the allocation of the "Transportation Development Act, Article 3," which funds \$2.9 million worth of Bay Area bicycle projects annually (see Chapter 5).
- **Resolution 3765:** This resolution, adopted in 2006, requires agencies applying for regional transportation funds to document how the needs of bicyclists and pedestrians were considered in the process of planning and/or designing the project for which funds are requested (see Appendix C).

- **Resolution 3434:** Although not directly related to bicycling, this resolution lays out \$13.5 billion of planned rail and bus investment and calls for the development of a regional transit-oriented development (TOD) policy to maximize the smart growth potential of these investments. The subsequent TOD policy adopted by MTC calls for maximizing transit investment by requiring prescribed numbers of nearby housing units, which will result in compact mixed-use communities that are inherently bicycle-friendly. MTC also created a companion program to fund planning around the region's present and future transit hubs (see "Funding" section later in this chapter).

#### Services/Programs/Tools

MTC also helps bicycling throughout the Bay Area by providing services that improve safety and encourage bicycling. See [www.mtc.ca.gov/planning/bicyclespedestrians](http://www.mtc.ca.gov/planning/bicyclespedestrians) for details about the current services and programs listed in this section.

- **511.org:** This Web site is MTC's portal to Bay Area transit, traffic, rideshare and bicycling information. The bicycle page is aimed at Bay Area bicyclists. Links include information on Bike-to-Work Day, bicycle access on transit and bridges, bicycle parking, bicycle safety and bicycling organizations. The page also provides interactive bicycle maps (see following page).



- **Bike-to-Work Day:** Sponsored by MTC's 511.org and organized by the Bay Area Bicycle Coalition, this annual event is dedicated to encouraging Bay Area residents to try bicycle commuting. Support includes coordination of "bicycle buddies" for the ride to work and

complimentary food, tote bags and t-shirts for participants. Bike-to-Work Day falls on the third Thursday in May, but usually involves a weeklong period, with other efforts – like the TEAM BIKE challenge and National Bicycle Month – lasting throughout the month of May. The TEAM BIKE challenge encourages novice and experienced cyclists to form teams that compete to log the most miles during the month of May.

- **511 BikeMapper<sup>SM</sup>:** BikeMapper<sup>SM</sup> is an interactive mapping tool that displays existing Bay Area bikeways. Rather than determining the best bicycle route between two points, BikeMapper<sup>SM</sup> displays all possible routes so the bicyclist can choose and print the route of his/her choice.
- **MTC bicycle/pedestrian planning Web page:** In addition to 511.org, which targets bicyclists, MTC hosts a bicycle planning Web page at [www.mtc.ca.gov/planning/bicyclespedestrians](http://www.mtc.ca.gov/planning/bicyclespedestrians).
- **Bicycle and Pedestrian Safety Toolbox:** MTC created the Bicycle and Pedestrian Safety Toolbox to help local

governments and others prevent collisions involving bicyclists and pedestrians through partnerships between multiple disciplines, multiple jurisdictions and the public. The Toolbox contains information for engineering, maintenance and planning staff, law enforcement officials, school districts, public health agencies and others. It also provides techniques to perform collision analysis, identify appropriate countermeasures, and develop effective bicycle and pedestrian safety programs. The toolbox can be accessed at [www.mtc.ca.gov/planning/bicyclespedestrians](http://www.mtc.ca.gov/planning/bicyclespedestrians).

- **Pedestrian and bicycle training workshops:** MTC periodically offers interactive workshops aimed at providing the latest bicycle and pedestrian design information to practicing transportation and urban planning and design professionals. These day-long classes cover trends in bicycle and pedestrian planning, design innovations and updates on related legislation, and bicycle planning tools. The workshops typically include an

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hour-long walkabout in the vicinity of each class site to observe and discuss common design challenges and solutions.

### Funding

MTC administers seven funding programs that can support bicycle projects. These grant programs — Transportation Enhancements; Transportation for Livable Communities; a new Regional Bikeway Network Program; Safe Routes to Transit; Transportation Development Act, Article 3; and a new Climate Action Program — are described in detail in Appendix D.

In addition to these sources, MTC's Station Area Planning Grant Program helps local governments map out plans for vibrant, mixed-use transit villages in the vicinity of transit hubs. Station area plans consider bicycle access in the context of roadway design, and call for facilities and amenities that encourage safe bicycle transportation.